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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,650	05/19/2004	Bertil Jonsson	7589.169.PCUS00	8965

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TRACY W. DRUCE, ESQ.
NOVAK DRUCE & QUIGG LLP
1615 L STREET NW
SUITE 850
WASHINGTON, DC 20036

EXAMINER	
RODRIGUEZ, WILLIAM H	
ART UNIT	**PAPER NUMBER**
3746	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/709,650	JONSSON, BERTIL	
	Examiner	Art Unit	
	William H. Rodriguez	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 19 May 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9/7/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-13 are objected to because of the following informalities: The recitation " [c#] " for claims 1-13 should be replaced by --1. ; 2. ; 3. ; etc-- respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 3, 5, 9, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by **Evans (U.S. 2,962,597)**.

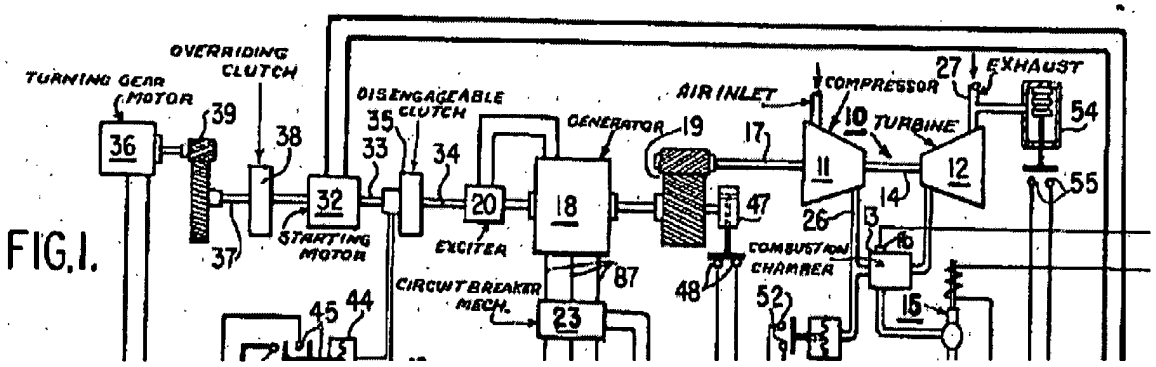

FIG. 1.

With respect to claim 1, **Evans** teaches a gas turbine arrangement comprising: a gas turbine (11, 12, 13); a generator 18; a gearbox 19 connected to an output shaft 17 from the gas

turbine and an input shaft to the generator 18; and a starter motor 32 connected to an output shaft from the generator 18. See particularly **Figure 1** of Evans.

With respect to claim 2, **Evans** teaches that the arrangement further comprises a coupling device 35 between the generator 18 and the starter motor 32 configured for coupling-in, and uncoupling the starter motor 32. See particularly **Figure 1** of Evans.

With respect to claim 3, **Evans** teaches that the coupling device 35 has a capacity for automatic uncoupling. See column 7 lines 39-45 of Evans.

With respect to claim 5, **Evans** teaches that the coupling device consist of a clutch.

With respect to claim 9, **Evans** teaches that the arrangement further comprises at least one auxiliary apparatus 39 which, for driving, is connected to an external energy source 36. See particularly **Figure 1** of Evans.

With respect to claim 12, **Evans** teaches that the arrangement further comprises at least one auxiliary apparatus 20 which, for driving, is connected to the output shaft from the generator 18. See particularly **Figure 1** of Evans.

With respect to claim 13, **Evans** teaches that the gas turbine arrangement is a stationary arrangement for electricity production.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Evans (U.S. 2,962,597)** in view of **Nelson (U.S. 6,178,733)** and in further view of **admitted prior art** (provided by applicant).

Evans does not teach a gearwheel transmission arranged between the starter motor 32 and the output shaft from the generator 18 but a clutch 35. However, **Nelson** teaches a gas turbine arrangement similar to Evan's arrangement wherein a generator 24 is connected to a starter motor 36 through connecting means 42 that could be either a clutch or a gear transmission. Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have used a gear transmission to connect Evans's starter motor to a generator as taught by Nelson. Further as admitted by applicant on paragraph 22 of the specification this gearwheel transmission is well known and used in the art. See Figure 2, column 4 lines 8-9 of Nelson and page 5 paragraph 22 of the specification.

Note: In Evans' arrangement it would have been obvious to use a gearwheel trasmissioon between the generator 18 and the starter motor 32 if the starter motor was not to be placed/mounted on the same shaft/axis of the generator. For instance, Evan teaches a motor 36 connected to a shaft 37 through a gearwheel transmission since the motor 36 is not mounted directly on shaft 37. Therefore, connecting Evans' starting motor directly to the output shaft of the generator or indirectly through a transmission would have been a design choice within the level of one of ordinary skilled in the art.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Evans (U.S. 2,962,597)** in view of **Klein (U.S. 3,490,229).**

Evans does not teach that the starter motor is connected to the output shaft of the generator via a chain transmission. However, in Evans' arrangement it would have been obvious to use some kind of transmission (gear, chain, belt, etc) to connect the starter motor to the output of the generator 18 if the starter motor was not to be placed/mounted on the same shaft/axis of the generator. For instance, Evans teaches a motor 36 connected to a shaft 37 through a gearwheel transmission since the motor 36 is not mounted directly on shaft 37. Therefore, connecting Evans' starting motor directly to the output shaft of the generator or indirectly through a transmission would have been a design choice within the level of one of ordinary skilled in the art. Further, as taught by **Klein** (column 4 lines 1-4) chain transmissions are well known and used in the art. Therefore, as taught by Klein selecting a type of transmission (gear, chain, belt, etc) would haven been a design choice within the level of one of ordinary skilled in the art. See column 4 lines 1-4 of Klein; and **Figure 1** of Evans.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Evans (U.S. 2,962,597)** in view of **Kronogard et al. (U.S. 4,470,261).**

Evans does not teach that the starter motor is connected to the output shaft of the generator via a belt transmission. However, in Evans' arrangement it would have been obvious to use some kind of transmission (gear, chain, belt, etc) to connect the starter motor to the output of the generator 18 if the starter motor was not to be placed/mounted on the same shaft/axis of the generator. For instance, Evans teaches a motor 36 connected to a shaft 37 through a gearwheel transmission since the motor 36 is not mounted directly on shaft 37. Therefore, connecting Evans' starting motor directly to the output shaft of the generator or indirectly

through a transmission would have been a design choice within the level of one of ordinary skilled in the art. Further, as taught by **Kronogard** (Figure 1 element 17) belt transmissions are well known and used in the art. Therefore, as taught by Kronogard selecting a type of transmission (gear, chain, belt, etc) would haven been a design choice within the level of one of ordinary skilled in the art. See **Figure 1**, column 1 line 60 of Kronogard; and **Figure 1** of Evans.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Evans (U.S. 2,962,597)** in view of **Nelson (U.S. 6,178,733)**.

Evans does not teach that the speed of the starter motor is adjustable, but rather teaches using a high speed starter motor 32 for starting the turbine and a low speed motor 36 for rotating the plant after shut down. However, **Nelson** teaches a starter motor 36 that has adjustable speeds (column 4 line 66 to column 5 line 1). Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have replace Evans' motors (32, 36) by Nelson's motor (a single motor that has variable speed) in order to reduce maintenance costs, and to reduce the size of the plant.

9. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Evans (U.S. 2,962,597)** in view of **Wahl et al. (U.S. 6,035,626)**.

Evans does not mention that the gearbox consists of a planetary gearbox, wherein the planetary gears drive at least one auxiliary apparatus. However, **Wahl** teaches a gas turbine arrangement similar to Evan's wherein the gearbox consists of planetary gears and at least one auxiliary apparatus 15, 16 is driven by the planetary gears. Therefore, it would have been

obvious to one of ordinary skilled in the art at the time the invention was made to have used the teachings of Wahl and have used planetary gears in Evans' gear box in order to drive auxiliary components through these planetary gears. For instance, a fuel pump could have bee driven by Evans' planetary gear box 19. See particularly **Figure 1** of Wahl.

Note: Gearboxes for the type of arrangement being claimed typically consists of planetary gears (page 1 line 56 of Kronogard U.S. 4,470,261).

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 571-272-4831. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William H. Rodriguez
Examiner
Art Unit 3746